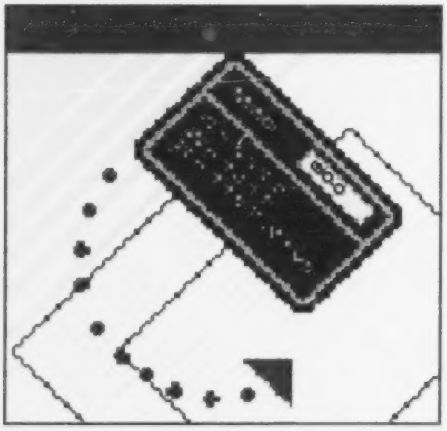
2004/2005

REGIONAL HEALTH AUTHORITY GLOBAL FUNDING

Methodology and Funding Manual



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EXECUTIVE SUMMARY

This manual shows how 2004/2005 Regional Health Authority Global Funding ($4.3 billion) has been allocated across RHAs (note: in addition to Global Funding, provincial funding for RHAs includes Province Wide Services funding and Non-Base funding).

The **population funding formula** continues to be the starting point and main driver for distributing available funding to RHAs. The major objective of a population formula is equity. With population-based funding, RHA funding shares are based on the relative health care needs of regional populations, and not on existing programs or facilities.

The simplest way to distribute funding on a population basis would be straight per capita funding. However, since different types of people have differing levels of health care needs, the population formula develops funding rates for 124 types of individuals as defined by their age, gender and socio-economic characteristics. These rates were based on observed health care expenditure data from 2002/2003, grossed up to the funding year. The same 124 funding capitation rates are applied to each region's projected population for the funding year to determine regional funding allocations ($3.8 billion). Overall per capita funding varies by region only because of different population mixes - regions with a higher proportion of seniors, for example, get higher overall average per capita funding. Variations in funding growth rates are driven primarily by the different rates of population growth across regions.

A major methodological change for 2004/2005 population funding includes the incorporation of Community Lab services in the allocation formula.

Since formula funding is allocated solely according to the population which resides in a region, **import-export adjustments** are made to the formula allocations to compensate for health care services provided to individuals outside of their home region. The total value of identified import-export activity for 2004/2005 is $346 million, based on observed service patterns from 2002/2003, grossed up to the funding year. However, the summed adjustments over all nine regions is zero, as total imports (positive funding adjustments) equal total exports (negative funding adjustments). For presentation purposes, Global Funding is being shown with import-export separated out.

The remainder of RHA global funding consists of **non-formula funding**. This consists of Funding Adjustments of $218 million, Mental Health funding of $231 million, and New Funding Adjustments of $28 million (for Non-Metro IT Initiative, Offset of Acquired Deficits and Continuing Care Information System Project).

Each RHA is also guaranteed a **minimum 4% funding increase**, prior to the New Funding Adjustments, from previous year comparable funding. This requires funding top-ups (totaling $20.2 million) for East Central and the three northern regions, the money for which is re-distributed on a proportional basis from the other five RHAs (negative adjustments).

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2004/2005 Regional Health Authority Global Funding (Gross)
($ thousands)

RHA	2003/2004 Comparable	Population Formula	Funding Adjustments	Mental Health	4% Minimum Guarantee Adjustments	New Funding Adjustments	TOTAL Funding	% change
R1	218,694	221,383	3,519	8,071	-1,225	1,372	**233,121**	**6.6**
R2	130,365	132,451	1,488	4,051	-337	1,327	**138,980**	**6.6**
R3	1,284,074	1,277,558	85,570	47,316	-7,965	12,012	**1,414,491**	**10.2**
R4	410,175	376,385	6,281	64,482	-2,214	3,505	**448,439**	**9.3**
R5	169,587	169,711	1,400	4,248	3,939	1,548	**180,846**	**6.6**
R6	1,291,933	1,220,686	91,971	87,586	-8,421	3,931	**1,395,752**	**8.0**
R7	220,089	215,835	3,509	7,889	6,025	1,940	**235,198**	**6.9**
R8	165,499	146,026	13,259	5,225	8,050	1,242	**173,802**	**5.0**
R9	68,917	57,953	10,598	2,098	2,149	877	**73,675**	**6.9**
Total	**3,959,331**	**3,817,988**	**217,595**	**230,965**	**0**	**27,754**	**4,294,303**	**8.5**

Import-Export (Not Included Above)
RHA Net Gain/Loss from Services to Non-Residents
($ thousands)

RHA	2003/2004	2004/2005
R1	-7,688	(9,365)
R2	-12,291	(14,857)
R3	38,788	43,763
R4	-37,911	(42,842)
R5	-25,715	(29,672)
R6	120,183	137,284
R7	-51,202	(57,617)
R8	-13,349	(14,323)
R9	-10,814	(12,371)

RHA GLOBAL FUNDING MANUAL

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Population Formula Funding

Overview

In the past, health care funding in Alberta was directed to specific facilities, agencies or programs, and was largely determined from previous funding levels. Beginning 1997/98, Alberta adopted a population-based RHA funding allocation methodology to ensure each region receives its fair share of the available health dollars.

Population funding develops **capitation funding rates for different types of individuals** which are reflective of their relative health care needs, and then applies these rates to each region's population. The capitation rates are based on the historical health care expenditures for the different types of individuals. Thus, a region's funding share is determined by its population size and mix (age, gender and socio-economic composition).

The amount of Population Formula Funding ($3.8 billion) is determined by total Health Authority Global Funding less: Alberta Cancer Board funding, Alberta Mental Health Board funding, RHA Mental Health funding, and Non-Formula funding.

2004/2005 Population Formula Funding Summary

RHA	2004/2005 Projected Population	Net* Per Capita Rate (rounded)	General Population Formula Allocation	PPP Allocation (modified formula)	TOTAL Population Formula Funding
R1	153,798	1,382	212,497,057	8,886,148	**221,383,205**
R2	98,540	1,300	128,094,767	4,356,714	**132,451,480**
R3	1,156,219	1,064	1,229,777,670	47,780,429	**1,277,558,099**
R4	290,759	1,242	361,171,123	15,213,594	**376,384,718**
R5	110,717	1,487	164,618,482	5,092,181	**169,710,663**
R6	1,000,946	1,174	1,175,123,747	45,562,038	**1,220,685,785**
R7	177,146	1,155	204,533,946	11,301,360	**215,835,306**
R8	132,665	1,044	138,553,179	7,472,651	**146,025,830**
R9	73,241	728	53,286,854	4,665,910	**57,952,764**
Total	**3,194,031**	**1,148**	**3,667,656,825**	**150,331,024**	**3,817,987,849**

* The same funding capitation rates are applied to each region's population, but the overall **net** per capita rate varies by region because of the different population mix in each region.

Population Formula Funding Methodology

1. Collect RHA Patient Activity Data

The population funding formula requires the assignment of regional health care expenditures to individual demographic groups for determination of capitation rates. The first step in this pursuit is the collection of comprehensive data on all RHA patient activity. For 2004/2005 funding, 2002/2003 was the most recent year for which provincial activity data was available. Data coverage of regional health services is relatively comprehensive, although a few gaps currently exist such as much of promotion/protection/prevention (PPP) activity. Because of the limited PPP data, this sector is excluded from the general population formula, with funding allocation determined by a modified population-based formula.

Acute hospital inpatient care - for 2004/2005 funding, activity data are hospital inpatient separations from the 2002/2003 CIHI Inpatient Morbidity file. All acute care facilities in Alberta report monthly inpatient separations (over 340,000 records annually) to the Canadian Institute for Health Information (CIHI) through a standard set of data elements. CIHI groups the discharges into CMGs (Case Mix Groups) with a complexity overlay for most CMG's and an age category where warranted.

After Alberta Health and Wellness receives Alberta's annual file from CIHI, several edits and adjustments are made before it is used for funding purposes. The adjustments include the standard practice of converting patient Personal Health Numbers (PHNs) to anonymous scrambled numbers to protect patient identity, and an adjustment for hospital transfers. This then requires a re-grouping of the data. Also, Province Wide Services inpatient activity is flagged and excluded from Global Funding calculations.

Hospital based ambulatory care - Alberta Health and Wellness has actively pursued collection of comprehensive ambulatory care activity and costing data. With implementation of the Ambulatory Care Classification System (ACCS), all acute care facilities in the province report ambulatory care visits, which forms the ambulatory care funding activity dataset. The 2002/2003 ACCS database contains over six million records. As for hospital inpatient activity, Province Wide Services (e.g. dialysis) are flagged and excluded from the ACCS funding database.

Continuing care - activity data are obtained from the Resident Classification System (RCS): all residents of provincial continuing care facilities and supportive housing are classified once a year ("snapshot") using a standard format. The RCS data reported to Alberta Health and Wellness includes demographic information and eight indicators/three domains which place a client into one of seven classification categories (A to G scale) representing increasing acuity levels or resources needed for care. RCS data used for 2004/2005 funding were collected from the Fall 2002 classification involving 12,951 residents.

Home care - activity data are obtained from the Home Care Information System (HCIS): all RHAs report monthly home care data through a standard set of data elements. The data are client specific (with PHNs) and include demographic, client classification and service information

(self-managed care and six service types - assessment, case co-ordination, direct professional, personal care, home support, indirect services). The activity data used for 2004/2005 funding are the HCIS 2002/2003 hours paid. Services provided under the Children With Complex Health Needs program are excluded because these are funded through Province Wide Services.

Community lab - under population-based funding, expenditures on lab services for hospital patients are bundled into the inpatient and outpatient MIS expenditures used to derive RHA activity pools, and these pools are subject to population formula allocation. However, funding allocation must also take into account non-hospital (community) patient lab tests ordered from physician offices. Community lab data (22 million records) for 2002/2003 was collected from the nine health regions through a special data request. Although standardized reporting was sought, there is some degree of non-uniformity in the data.

2. Attach Relative Cost Weights

The next step in the Population Formula allocation methodology is to convert all of the patient activities collected in step one into an RHA expenditure . To determine expenditure, relative resource weights are first attached to each activity record. The relative values are then properly weighted in step three.

Acute hospital inpatient care - weighting employs CIHI's CMG/RIW methodology. Calculated RIWs (Resource Intensity Weights) are attached to each CMG separation on the Morbidity file. These RIWS are derived from Canadian cost records. Since Alberta currently supplies nearly three-fifths of the costing records used by CIHI, the RIWs largely reflect the Alberta cost structure.

Hospital based ambulatory care - relative resource weights applied to ACCS visits are system-wide ACCS relative values derived from 2001/2002 cost information provided by three regions (Calgary, Crossroads, Edmonton) and blended with cost data from the previous year (and top-ups from years before that if needed).

Continuing care - cost weights for the A to G patient classifications were determined several years ago for funding purposes. For 2004/2005 funding, these relative cost weights, with some inflation factor, are still used:

A - $12,020.17
B - $15,663.70
C - $20,348.86
D - $23,957.52
E - $32,552.07
F - $39,398.95
G - $65,906.07

Home care - self-managed care is valued at actual reported costs; the hours for the six general service types are weighted by the 2002/2003 provincial average cost rates calculated by adding up all provider costs for all regions and dividing by the total number of providers:

Assessment	$ 31.36
Case Coordination	$ 39.88
Direct Professional	$ 29.80
Personal Care	$ 12.50
Home Support	$ 12.22
Indirect Services	$ 26.33

Only the direct provider costs are included in the calculations. Indirect costs (such as administration, travel costs, management and building depreciation) are not included because these costs are reported in varying degrees across regions and are not client specific.

Community Lab - Health Funding and Costing has calculated a set of relative values for CLPL codes, based on cost data primarily from Capital Health (plus some cost data from Palliser). For non-CLPL activity records, a relative value equal to one (i.e. the overall average cost) was assigned. This is an area where more cost data and further developmental work is required.

3. Scaling to Pool (Budget) Size

The activity data collected in step one are not entirely comprehensive of all RHA activity nor reflective of volume changes in the funding year, while the resource weights in step two are relative weights within a sector and not reflective of the full actual costs of the services in the funding year. To compensate for these deficiencies, the expenditure weights (weighted activity) in each sector are scaled in step three by a single factor so that the total summed expenditure for equals the total pool size (expected expenditure) for that sector in the funding year. This scaling is necessary to achieve proper expenditures (capitation rates) in the funding year for each sector.

Sector pool sizes are determined by the total dollars available for formula funding and the historical expenditure distribution across activity areas. For 2004/2005 funding, the expenditure distribution across activity areas was based on the 2001/2002 reported regional spending pattern, as determined from Management Information System (MIS) data.

All RHAs are required to submit to Alberta Health and Wellness financial and statistical MIS data which reconcile to the RHA's audited financial statements. A program developed by Alberta Health and Wellness assigns the reported RHA operating expenditures (excluding such items as building amortization and unfunded pension accrual adjustment) to the various funding sectors. All allocations are done on a facility-specific basis and then added up to the RHA and then the provincial level. Health Funding and Costing then makes a number of further adjustments to align sector expenditure to formula funded activity (for example, Province Wide Services expenditure is removed).

Improvement in the assignment of MIS data to appropriate sectors is ongoing. While sector distribution for 2004/2005 funding was not updated for 2002/2003 MIS data, Health Funding and Costing improved the expenditure allocation adjustments. These had the effect of increasing the funding pool shares for community lab, ambulatory care and PPP, with corresponding share decreases for the other sectors.

The following funding pool sizes were calculated for 2004/2005 funding:

Activity Sector	2004/2005 Funding Pool Size ($)	%
Acute Inpatient	1,547.4 M	**40.5**
Ambulatory Care	958.7 M	**25.1**
Continuing Care	708.7 M	**18.6**
Home Care	315.6 M	**8.3**
PPP	150.3 M	**3.9**
Community Lab	137.3 M	**3.6**
TOTAL	3,818.0 M	**100.0**

These pool sizes should not be interpreted as targeted funding. Delineation of total funding into activity pools is done for data weighting purposes only.

4. Calculate Expenditure (Capitation) Rates for 124 Demographic Groups

The simplest way to distribute funding on a population basis would be straight per capita funding. However, it is well established that significant variation in health needs results from variations in age, gender and socio-economic status. For example, on average, seniors require much more health care than younger people, and individuals on social assistance generally require more health care than persons of the same age and gender not receiving social assistance.

The scaled activity expenditures (steps 1-3) are therefore assigned to individual demographic groups to determine funding capitation rates for 124 different population groups. The 124 groups are based on 20 age groupings, 2 gender groupings and 4 socio-economic status groupings (welfare, aboriginal, premium subsidy, other). **Appendix B** contains information on **population** (population data source, determining region of residence, the 124 demographic groups, and population projection).

To calculate the 124 capitation rates, all of the individual patient activity expenditures (developed in the first three steps) must be assigned to one of the 124 demographic groups. To accomplish this, for each activity the individual is linked via their Personal Health Number (PHN) on the activity record to the Population Registry file to determine which demographic group the individual belongs to (note: Alberta Health and Wellness uses scrambled PHNs to protect the identity of individuals at all times). Where proper PHNs do not exist (less than one

percent of all records), or where the PHN cannot be matched up to or found on the Population Registry, the records are excluded from the capitation funding rates calculation (although they are used for the import-export adjustments wherever possible).

The summed expenditure in each of the 124 groups is then divided by the total projected Alberta population for that group to derive a provincial average per capita rate for that group, which is then used for population funding. This approach assumes that historical health care utilization serves as a proxy or measure of relative health care need, and that age, gender and socio-economic characteristics will be accurate predictors of variations in population health expenditure needs (or, more precisely, health expenditure risks).

The following table lists the 2004/2005 funding capitation rate (rounded) for each of the 124 demographic groups. These capitation rates vary from a low of $240 per person (*age 20-24 male regular*) to $25,146 per person (*age 90+ female*).

			2004/2005 FUNDING CAPITATION RATES ($)			
Age_Grp	Age	Sex	Regular	Premium Support	Aboriginal	Welfare
00	<01	F	2,011	2,381	2,701	2,533
01	01 - 04	F	449	577	1,027	719
02	05 - 09	F	310	377	376	453
03	10 - 14	F	254	306	279	451
04	15 - 19	F	405	575	965	1,279
05	20 - 24	F	547	1,030	1,519	2,444
06	25 - 29	F	805	1,076	1,471	3,013
07	30 - 34	F	890	986	1,313	2,688
08	35 - 39	F	721	884	1,179	3,256
09	40 - 44	F	544	751	1,106	3,165
10	45 - 49	F	587	901	1,344	3,133
11	50 - 54	F	711	1,012	1,591	4,442
12	55 - 59	F	834	1,261	1,885	4,282
13	60 - 64	F	1,106	1,632	2,223	4,991
14	65 - 69	F	1,965	-	-	-
15	70 - 74	F	3,097	-	-	-
16	75 - 79	F	4,896	-	-	-
17	80 - 84	F	7,896	-	-	-
18	85 - 89	F	14,595	-	-	-
19	90+	F	25,146	-	-	-
00	<01	M	2,310	2,525	2,839	2,616
01	01 - 04	M	593	620	1,157	811
02	05 - 09	M	422	454	490	623
03	10 - 14	M	303	362	313	495
04	15 - 19	M	317	416	434	795
05	20 - 24	M	240	366	560	2,174
06	25 - 29	M	245	455	522	2,986
07	30 - 34	M	284	489	763	2,663
08	35 - 39	M	335	669	868	3,797
09	40 - 44	M	364	625	919	2,856
10	45 - 49	M	446	823	1,177	3,087
11	50 - 54	M	600	988	1,353	4,019
12	55 - 59	M	757	1,475	1,590	4,246
13	60 - 64	M	1,133	2,025	2,118	5,111
14	65 - 69	M	2,290	-	-	-
15	70 - 74	M	3,225	-	-	-
16	75 - 79	M	4,881	-	-	-
17	80 - 84	M	7,459	-	-	-
18	85 - 89	M	12,291	-	-	-
19	90+	M	21,511	-	-	-

5. Apply Capitation Rates to Each Region's Projected Population

The 124 derived capitation rates are applied to each region's projected population (see Appendix B) to determine regional funding allocations. In other words, funding for each region is determined by multiplying the projected number of individuals in that region in each of the 124 demographic groups by the corresponding capitation rate (estimated provincial average health expenditures per person).

Because the capitation rates vary by demographic group, and because the demographic composition differs by region, a different *overall* per capita funding rate occurs for each Regional Health Authority. Northern regions tend to have the lowest overall per capita funding because of their younger populations, while East Central and Chinook regions have the highest per capita funding because of their higher proportion of seniors.

6. Protection, Prevention and Promotion Allocation

The Protection, Prevention and Promotion (PPP) funding pool covers:

- ***Health Protection*** - immunizations, communicable disease control, chronic disease programs, environmental health, dental health, community relations, sexual and reproductive care.
- ***Community Health Services*** - community health nursing, family planning, health promotion/education, breast screening, drug awareness, mental heath promotion, pre-natal teaching, public health, nutrition, school health, etc.

Because of the limited data for promotion/protection/prevention activity, this sector is excluded from the general population formula. A separate allocation of the dollars in this funding pool is determined by a modified population formula, with no import-export.

The first step in this funding allocation methodology is to split the PPP funding pool into three broad age group categories. The proportions were based on the judgement of Alberta Health and Wellness personnel involved with these programs:

	Split
Age 0-19	62%
Age 20-64	26%
Age 65+	12%
Total	**100%**

Next, for each RHA, the socio-economic population in each of the three broad age groups are weighted according to the scheme below. Again, this weighting scheme (relative utilization by socio-economic group) was based on the judgement of those involved with this health service area:

	Weighting
Regular	1
Subsidy	2
Aboriginal	5
Welfare	5

Each region's share of the three funding age sub-pools is determined by its share of the estimated provincial weighted population. This led to the following allocations of the Protection, Promotion and Prevention pool:

2004/2005 Protection, Promotion and Prevention Funding Pool Allocation

RHA	PPP Allocation	% Share
R1	8,886,148	5.9
R2	4,356,714	2.9
R3	47,780,429	31.8
R4	15,213,594	10.1
R5	5,092,181	3.4
R6	45,562,038	30.3
R7	11,301,360	7.5
R8	7,472,651	5.0
R9	4,665,910	3.1
Total	**150,331,024**	**100.0**

Non-Formula Funding Adjustments

Overview

Some RHA Global Funding is provided outside of the population formula. There are several possible reasons for having non-formula funding in addition to population formula funding:

- where sufficient data does not exist for a proper population formula allocation
- to compensate for geographical variances in health care needs beyond that determined from differences in demographic composition (diagnostic imaging adjustment, rural dialysis)
- to compensate for variances in RHA unit costs, because the formula provides the same provincial average per capita funding rates to each RHA (cost adjustment factor)
- where targeted funding is desirable (acute care coverage, alternate payment plans, Western Canada Heart Network, residents services allowances, academic health services, mental health, Non-Metro IT initiative, acquired deficit offset, continuing care information system).

Non-formula funding for 2004/2005 includes **Funding Adjustments** totaling $217.6 million, **Mental Health** funding of $231.0 million, and **New Funding Adjustments** totaling $27.8 million.

2004/2005 Funding Adjustments

RHA	Cost Adjustment Factor	Acute Care Coverage	Diagnostic Imaging Adjustment	Alternate Payment Plan	Rural Dialysis
R1	-	874,024	1,415,685	527,347	702,220
R2	-	503,368	690,825	33,654	260,334
R3	41,692,765	5,482,900	-	6,125,189	-
R4	-	1,166,636	4,212,319	63,549	838,689
R5	-	-	1,285,577	-	114,717
R6	40,433,778	5,999,500	-	4,812,490	-
R7	1,041,865	-	2,300,142	-	167,126
R8	8,895,313	583,470	3,633,250	-	146,768
R9	8,672,872	390,102	1,461,783	18,994	54,053
TOTAL	**100,736,593**	**15,000,000**	**14,999,581**	**11,581,223**	**2,283,907**

RHA	Western Canada CHN	Residents Services Allowance	Academic Health Centres	TOTAL FUNDING ADJUSTMENTS
R1	-	-	-	**3,519,276**
R2	-	-	-	**1,488,181**
R3	-	22,667,063	9,601,588	**85,569,505**
R4	-	-	-	**6,281,193**
R5	-	-	-	**1,400,294**
R6	160,000	29,415,796	11,149,582	**91,971,146**
R7	-	-	-	**3,509,133**
R8	-	-	-	**13,258,801**
R9	-	-	-	**10,597,804**
TOTAL	**160,000**	**52,082,859**	**20,751,170**	**217,595,333**

Cost Adjustment Factor ($100,736,593)

The funding formula applies the same per capita funding rates (provincial average costs) to each RHA population. The Cost Adjustment Factor then compensates for cost factors outside of RHA control which result in above-average service delivery costs in some regions.

RHA 2003/2004 funding allocations included a substantially revised Cost Adjustment Factor and a Northern Allowance. For 2004/2005, the Northern Allowance is consolidated into the Cost Adjustment Factor via increases to the Cost of Doing Business Factor for Aspen RHA (increased from 12.5% to 18.5%), and to the Inpatient Sector Cost Index for the other two northern RHAs (+.1172 for Peace Country RHA, and +.3839 for Northern Lights RHA). This will ensure the Northern Allowance grows with the budget increases of the northern regions.

The Cost Adjustment Factor consists of separate adjustments for the inpatient and non-inpatient services.

For **hospital inpatient** services, the Cost Adjustment Factor is based on a statistical measurement of RHA cost variations. The methodology uses regression analysis to quantify the impact of various factors (such as patient remoteness) on regional cost variances per adjusted weighted inpatient separation (MIS determined). To determine the funding Cost Adjustment Factor, the calculated regional cost variation index (Alberta total = 1.0) is applied to regional 2004/2005 hospital inpatient utilization (provincial average utilization), adjusted for import-export, as determined by the funding formula. The cost index ranges from a low of 0.70 for Regions 5 and 7, to 1.15 for Region 3 (Calgary). Only the two urban regions (Calgary, Capital) have a cost index above the provincial average, largely the result of the higher costs of their large teaching hospitals. The resulting regional cost adjustment factor amounts are then discounted by 50% given concerns about the preciseness of the cost variation calculations.

For the **non-inpatient** RHA sectors, the historical Cost of Doing Business and Assured Access methodologies are applied to determine additional cost adjustments. For Cost of Doing Business, a cost supplement of 25% is applied for Regions 8 and 9, and a cost supplement 12.5% for Region 7 (increased to 18.5%), on their non-salary non-inpatient budget (estimated to be 25% of their 2004/2005 provincial average utilization, adjusted for import-export). Assured Access funding is calculated by applying, to the remote population in each region, special rates equal to 25% (for remote population) and 50% (for very remote population) of the average non-inpatient per capita funding rate. Determination of remote population is based on 2001 Census data, utilizing the previously established Assured Access methodology.

The results from the above calculations (inpatient and non-inpatient cost adjustment factors) were combined for each RHA, and all negative sums set to zero:

Table A - Inpatient Sector

RHA	2004/2005 Inpatient Utilization ($M)	Cost Variation Index	Cost Adjustment Factor ($M)	50% Discounted Factor ($M)
R1	83.9	-0.14	-11.7	**-5.8**
R2	45.2	-0.28	-12.6	**-6.3**
R3	552.0	0.15	82.7	**41.4**
R4	124.9	-0.26	-32.2	**-16.1**
R5	50.8	-0.30	-15.5	**-7.7**
R6	589.9	0.14	80.8	**40.4**
R7	50.0	-0.30	-14.8	**-7.4**
R8	51.1	-0.02	-0.9	**-0.5**
R9	15.6	0.35	5.4	**2.7**
	1,563.3			**40.6**

Table B - Remaining Sectors (Cost of Doing Business)

RHA	2004/2005 Non-IP Utilization ($M)	Supplies Portion 25% ($M)	Cost of Doing Bus Adjustment Factor	Cost of DB Adjustment Factor ($M)
R1	-	-	-	-
R2	-	-	-	-
R3	-	-	-	-
R4	-	-	-	-
R5	-	-	-	-
R6	-	-	-	-
R7	113.0	28.2	0.185	**5.2**
R8	80.7	20.2	0.25	**5.0**
R9	27.9	7.0	0.25	**1.8**
	221.6			**12.0**

Table C - Remaining Sectors (Assured Access)

RHA	Remote Population	Very Remote Population	Assured Access Funding Rate	A. Access Adjustment Factor ($M)
R1	2,355	268	$175.77	**0.5**
R2	5,383	4,118	remote	**2.4**
R3	1,824	15		**0.3**
R4	8,011	4,027	$351.54	**2.8**
R5	4,205	271	very remote	**0.8**
R6	65	0		**0.0**
R7	8,460	4,876		**3.2**
R8	11,692	6,402		**4.3**
R9	6,447	8,804		**4.2**
	48,442	28,781		**18.6**

Table D - TOTAL (SUMMED) COST ADJUSTMENT FACTOR

RHA	Total Cost Adjustment Factor ($M)	Negatives Set to Zero ($M)
R1	-5.4	0
R2	-3.9	0
R3	41.7	41.7
R4	-13.2	0
R5	-6.9	0
R6	40.4	40.4
R7	1.0	1.0
R8	8.9	8.9
R9	8.7	8.7
	71.3	100.7

Acute Care Coverage ($15,000,000)

Starting 2001/2002, certain RHAs with larger hospitals are to receive $15 million on a continuing basis to address patient coverage needs in acute care hospitals. Funding can be used for expansion of existing programs and/or establishment of new programs and services involving physicians, nurses, clinical assistants, medical residents and/or nurse practitioners. This funding is administered by the Health Workforce Division of Alberta Health and Wellness. For more information, contact Deb Kaweski at (780) 415-0212.

Diagnostic Imaging Adjustment ($14,999,581)

Population formula funding provides each RHA with the estimated provincial average utilization, including provincial average diagnostic imaging (DI) expenditure. However, because of varying regional access to private DI clinics, where the DI is paid for out of the physician fee-for-service pool, some regions require less than the provincial average DI expenditure while other regions require more. Thus, a DI Adjustment was introduced in 2000/01 to compensate for the different population needs for RHA DI services (as measured from radiology fee-for-service claims), and to remove financial incentives for RHAs to encourage private DI services. Beginning 2001/2002, the negative adjustments for Calgary and Capital were removed.

Alternate Payment Plan ($11,581,223)

With regionalization, Alberta Health contracts with individual physicians were divested to certain regions (Calgary, Capital, Chinook, David Thompson, Palliser, Northern Lights), along with special funding to cover the contracts. These historical allocations have continued.

Rural Dialysis Funding ($2,283,907)

All renal dialysis costs for Calgary and Capital are funded by Province Wide Services. However, rural RHAs also incur "hospitality" support costs (lab procedures, environmental services, etc.) for the dialysis satellite units in their region. These support costs have historically been borne by rural RHAs out of their global funding. To ensure equitable treatment for all regions, non-formula funding covers the dialysis support costs of rural regions. For 2004/2005, this funding is based on an estimated rural RHA support cost of $35.49 per hemodialysis run, and per projected rural hemodialysis satellite run.

Western Canadian CHN ($160,000)

Funding to Capital Health for the Western Canadian Children's Heart Network which works towards providing quality paediatric cardiac care to all children in western Canada.

Residents Services Allowances ($52,082,859)

These funds are paid to the Capital Health Authority and Calgary Health Region for the purpose of remunerating medical residents providing services to teaching hospitals as part of their medical education.

Academic Health Centres ($20,751,170)

Funding to Calgary and Capital for remuneration to academic physicians for some of their teaching and research activities within academic health centres.

Mental Health Transfer ($230,965,818)

Selected community and facility mental health services were divested from the Alberta Mental Health Board to RHAs beginning April 1, 2003. For 2004/2005, the Mental Health funding envelope ($226,035,200) was determined by applying an 8.66 per cent growth rate to 2003/2004 funding ($208,019,557). The same regional distribution was maintained as in 2003/2004.

In addition, $2 million funding for Childrens Mental Health Services was added, distributed across RHAs according to the distribution of population age 3 to 18 (as at March 31, 2003). Also added was funding of $2,930,618 for adjustments recommended by the Alberta Mental Health Budget Allocation Review Panel, representing a transfer of funds from the Alberta Mental Health Board.

Mental Health Funding

		2004/2005 Mental Health Funding			
			Transfers from AMHB		
RHA	2003/04 Mental Health Envelope	(8.66% increase) 2004/05 Mental Health Envelope	Childrens Mental Health Services	Review Panel Adjustments	2004/05 TOTAL
1	6,851,960	7,445,378	104,583	521,021	**8,070,981**
2	3,572,240	3,881,616	62,725	106,559	**4,050,900**
3	42,042,252	45,683,343	681,039	951,585	**47,315,967**
4	59,042,537	64,155,947	196,118	130,137	**64,482,202**
5	3,844,868	4,177,855	72,533	(2,249)	**4,248,139**
6	79,147,250	86,001,839	599,850	983,962	**87,585,651**
7	6,785,426	7,373,081	132,525	383,161	**7,888,767**
8	5,065,255	5,503,934	95,623	(374,119)	**5,225,438**
9	1,667,769	1,812,207	55,005	230,561	**2,097,773**
	208,019,557	**226,035,200**	**2,000,000**	**2,930,618**	**230,965,818**

Import-Export Funding Adjustments

Overview

Since population formula funding is allocated solely according to the population which resides in a region, import-export adjustments must be made to compensate for health services provided to individuals who cross regional boundaries to receive services. Such activity accounts for about nine percent of total regional health care activity in the province. An amount of $346.0 million is the total valuation of import-export activity identified for 2004/2005 funding. Excluding Community Lab import-export which is new, this represents a 6.9% increase from previous year, which is in line with the total budget increase (i.e. little change in import/export activity).

Import-Export Funding Methodology

1. Identification of Import-Export Activity

The first step in calculating import-export adjustment is to identify inter-regional activity on the data sets used for population formula funding. For 2004/2005 funding, activity data sets are available for each RHA sector except protection, prevention and promotion. The data sets consist of 2002/2003 data. As explained before, the scaling of calculated 2002/2003 activity expenditure up to the total budget pool is intended to compensate for any non-reported activity (including import-export) as well as volume increases up to the funding year.

An import-export is identified for any activity where the region of service (as determined by the facility number or service location on the file) is different from the region of patient residence (as determined from the Population Registry file on March 31, 2003). For services where the region of patient residence is not determinable, it is assumed that they are local cases and not subject to import-export adjustment.

For hospital inpatient services, Province Wide Services are excluded from import-export, as well as Calgary's forensic psychiatry program from the Peter Lougheed Hospital which is funded outside of RHA Global Funding.

For continuing care, identification of import-export is more complicated. For residents classified twice by the Resident Classification System in different facilities, only the second classification is considered. Also, the region of residence for import-export (but not for general funding allocation) is set as the region in which the person lived (mailing address) one year prior to admission to the continuing care facility system. Prior residency is checked for AHCIP registrations going back to April 1, 1984, which covers the large majority of continuing care residents. For those records where the provider RHA differs from the patient RHA one year prior to admission, an import-export service is identified. For resident records that do not have an AHCIP registration number one year prior to admission, no import-export identification is made.

For home care, no import-export activity is identified for 2004/2005 funding because no provider site is identified on the activity records.

2. Valuation of Import-Export Activity

The next step is to value the identified import-export activity. Because the valuation methodology used is generally the same as for the funding capitation rates (i.e. expenditure weights scaled up to sector pool size), general volume and price increases for the funding year are incorporated into the total import-export valuation.

Hospital inpatient - the same methodology used in determining funding capitation rates (RIWs scaled by pool size) is used to value identified import-export inpatient services. However, as the import-export activity does not require age gender and socio-economic identification, the total volume of activity records used to calculate import-export is slightly higher than that used for capitation funding (i.e. some activity records without a PHN cannot be used in the calculation of capitation rates, but can be used for import-export calculation where a valid Alberta postal code exists on the record to identify patient region residence). This leads to a correspondingly slightly lower scaling factor - the dollar multiplier for the 2002/2003 import-export inpatient RIW is $3,970.15 (rounded).

Ambulatory care - again, the same methodology used for the funding capitation rates (ACCS cell expenditures scaled by pool size) is used to value identified import-export services, with a slightly lower dollar multiplier because additional activity records can be utilized. The dollar multiplier for the 2002/2003 import-export ACCS RIW is $181.47 (rounded).

Continuing care - the values attached to identified import-exports are the Resident Classification System A to G expenditure weights (see page 7), not scaled by pool size (because of concerns about the accuracy of the estimated total continuing care pool size), less the continuing care capitation funding rate already received by the service region because that person is included in that region's resident population. As explained previously, for Population Formula allocation, patients in continuing care facilities are considered as residents of the region in which the facility is located. However, for import-export identification, the region of residence is defined as the region where the person lived one year prior to their admission to the continuing care facility system. Because the region where the facility is located is already the recipient of the general Population Formula Funding (capitation rate) for that person, the continuing care component of the capitation rate is adjusted out of any import compensation it also receives.

Community lab - the dollar multiplier for the 2002/2003 import-export Community Lab RIW is $6.74 (rounded).

3. Application of Import-Export to Regional Funding Allocations

The value of each identified import-export activity is assigned to the region where the service is provided (import), and deducted from the region where the patient comes from (export). Thus,

summed import-export adjustments over all nine regions is zero - total imports (positive) equal total exports (negative). However, individual RHAs have a net positive or negative adjustment depending on whether they are a net-importer or net-exporter of regional health services. Both Calgary and Capital RHAs service a significant number of patients from other regions, and therefore are the recipients of a large *positive* net import-export adjustment - $44 million and $137 million, respectively). All other regions receive a *negative* net import-export adjustment.

2004/2005 Import-Export Funding Adjustments

RHA	Inpatient			Ambulatory Care		
	Import	Export	Net	Import	Export	Net
R1	6,487,097	13,160,830	(6,673,734)	4,634,755	7,406,756	(2,772,001)
R2	3,017,479	12,494,715	(9,477,236)	1,265,167	6,363,563	(5,098,396)
R3	43,679,732	16,040,370	27,639,362	24,993,500	10,089,110	14,904,390
R4	13,182,163	40,447,016	(27,264,852)	8,060,100	23,161,592	(15,101,492)
R5	6,777,232	26,442,112	(19,664,879)	4,435,645	14,536,063	(10,100,418)
R6	112,406,026	16,347,128	96,058,898	54,542,359	13,371,817	41,170,542
R7	6,320,070	48,786,097	(42,466,027)	7,860,604	23,032,681	(15,172,077)
R8	4,416,759	14,699,967	(10,283,208)	4,109,187	7,938,275	(3,829,088)
R9	1,511,869	9,380,193	(7,868,324)	1,756,879	5,758,340	(4,001,460)
TOT	**197,798,427**	**197,798,427**	**0**	**111,658,196**	**111,658,196**	**0**

RHA	Continuing Care			Community Lab		
	Import	Export	Net	Import	Export	Net
R1	1,321,469	1,320,257	1,213	337,578	257,749	79,829
R2	1,057,507	1,030,058	27,449	26,392	335,096	(308,704)
R3	5,493,017	3,887,515	1,605,502	827,100	1,213,734	(386,635)
R4	4,672,855	4,950,378	(277,523)	1,069,712	1,268,335	(198,622)
R5	3,903,391	3,137,657	765,734	306,190	978,301	(672,111)
R6	6,352,005	9,048,137	(2,696,132)	4,307,188	1,556,628	2,750,560
R7	3,985,777	3,171,776	814,000	1,021,945	1,814,515	(792,570)
R8	1,316,894	1,154,886	162,008	180,448	553,344	(372,895)
R9	146,465	548,717	(402,252)	231,506	330,358	(98,852)
TOT	**28,249,381**	**28,249,381**	**0**	**8,308,060**	**8,308,060**	**(0)**

RHA	TOTAL 2004/2005 IMPORT-EXPORT		
	Import	Export	Net
R1	12,780,899	22,145,593	(9,364,694)
R2	5,366,546	20,223,432	(14,856,886)
R3	74,993,349	31,230,729	43,762,620
R4	26,984,831	69,827,321	(42,842,490)
R5	15,422,458	45,094,132	(29,671,674)
R6	177,607,577	40,323,709	137,283,868
R7	19,188,396	76,805,069	(57,616,673)
R8	10,023,289	24,346,471	(14,323,183)
R9	3,646,720	16,017,608	(12,370,888)
Total	**346,014,064**	**346,014,064**	**0**

Minimum Guarantee Adjustments

Overview

As in previous years, each RHA is guaranteed a minimum funding increase (4.0% for 2004/2005) from their previous year comparable funding, prior to the new funding for Non-Metro IT Initiative and new Alternate Payment Plans. This guarantee required funding top-ups (positive minimum guarantee adjustments) totaling $20.4 million for four regions (Regions 5, 7, 8, 9), the money for which was re-distributed on a proportional basis from the other five RHAs (negative minimum guarantee adjustments).

Other Adjustments

Overview

For 2004/2005 RHA Global Funding, three new non-formula funding payments are made after the Minimum Guarantee adjustments:

- Non-Metro IT Initiative
- Offset of Acquired Deficits
- Continuing Care Information System

2004/2005 New Global Funding Adjustments
(after Minimum Guarantee)

RHA	Non-Metro IM/IT	Offset Acquired Deficits	Continuing Care Info System	TOTAL FUNDING ADJUSTMENTS
R1	758,000	614,000	-	1,372,000
R2	933,000	394,000	-	1,327,000
R3	-	4,512,000	7,500,000	12,012,000
R4	2,354,000	1,151,000	-	3,505,000
R5	1,106,000	442,000	-	1,548,000
R6	-	3,931,000	-	3,931,000
R7	1,230,000	710,000	-	1,940,000
R8	716,000	526,000	-	1,242,000
R9	599,000	278,000	-	877,000
TOTAL	**7,696,000**	**12,558,000**	**7,500,000**	**27,754,000**

Non-Metro IM/IT Initiative ($7,696,000)

Funding is provided to Alberta's seven rural (or non-metro) RHAs for a collaborative initiative to establish a common health care information system. Funding allocation is subject to the terms and conditions specified in grant agreements. Alberta Health & Wellness has indicated its intent to advance funds on an annual basis over the seven-year timeframe.

Offset Acquired Deficits ($12,558,000)

Funding is provided to regions to cover their allocated share of the accumulated deficit of discontinued regions.

Continuing Care Information System ($7,500,000)

Funding is channeled to the Calgary Health Region to support the operations of regional continuing care programs. This includes implementation of standardized assessment and care planning tools and data to meet the Continuing Care Systems Project requirements, as well as the purchase and implementation of software and hardware.

Capital Health will receive a corresponding $7,500,000 funding allocation in 2005/2006.

Appendix A - FUNDING COMPARISON WITH PRIOR YEAR

2004/2005 FUNDING	2003/2004 FUNDING
Population active AHCIP registrations as of March 31, 2003, projected to September 30, 2004, and scaled to an overall annual provincial population increase of 1.5% for 2004/2005	**Population** active AHCIP registrations as of March 31, 2002, projected to September 30, 2003, and scaled to an overall annual provincial population increase of 1.8% for 2003/2004
Activity Data 1. *hospital inpatient*: 2002/2003 Morb File CMGs 2. *ambulatory care*: 2002/2003 ACCS visits (6.2 million records) 3. *continuing care*: Fall 2002 Resident Classification patients 4. *home care*: 2002/2003 HCIS provider hours 5. *community lab*: tests from special data request	**Activity Data** 1. *hospital inpatient*: 2001/2002 Morb File CMGs 2. *ambulatory care*: 2001/2002 ACCS visits (5.9 million records) 3. *continuing care*: Fall 2001 Resident Classification patients 4. *home care*: 2001/2002 HCIS provider hours
Relative Cost Weights 1. *hospital in-patient*: CIHI RIW 2002 2. *ambulatory care*: SWRV weights based on 2002/2003 activity data from Calgary and Capital 3. *continuing care*: A to G values (with some inflation) 4. *home care*: 2002/2003 HCIS provincial average direct hourly cost for provider types 5. *community lab*: RVIs derived by Health Funding and Costing	**Relative Cost Weights** 1. *hospital in-patient*: CIHI RIW 2001 2. *ambulatory care*: ACP ACCS cell average costs based on two year (prelim 01/02, 00/01 blended) cost records of Calgary, Crossroads, Capital 3. *continuing care*: A to G values (with some inflation) 4. *home care*: 2001/2002 HCIS provincial average direct hourly cost for provider types
Pool Size (for scaling expenditure weights) 1. total formula funding pool = $3,817 million 2. sector distribution of total pool based on refined 2001/2002 MIS expenditure allocation	**Pool Size (for scaling expenditure weights)** 1. total formula funding pool = $3,526 million 2. sector distribution of total pool based on 2001/2002 MIS expenditure allocation
PPP Allocation PPP pool divided into 3 age sub-pools (age 0-19 62%; age 20-64 26%; age 65+ 12%) for allocation to RHAs on basis of weighted population	**PPP Allocation** PPP pool divided into 3 age sub-pools (age 0-19 62%; age 20-64 26%; age 65+ 12%) for allocation to RHAs on basis of weighted population

Community Lab Allocation Pool allocation incorporated in full funding formula.	**Community Lab Allocation** Historical non-formula allocation replaced by modified population formula allocation.
Non-Formula (Line Items) Funding Northern Allowance incorporated into Cost Adjustment Factor. New non-formula items are Non-Metro IT Initiative, Offset of Acquired Deficits, and Continuing Care Information System Project.	**Non-Formula (Line Items) Funding** Several non-formula funding items from 2002/2003 eliminated (i.e. dollars rolled into population formula funding) or transferred to PWS. New non-formula items are Cost Adjustment Factor (substantially revised) and Rural Dialysis.
Import-Export 1. Identified activity from 2002/2003 data. No import-export activity identified for home care. 2. Inpatient RIW multiplier of $3,970. 3. No ACCS edit for multiple records.	**Import-Export** 1. Identified activity from 2001/2002 data. No import-export activity identified for home care. 2. Inpatient RIW multiplier of $3,610. 3. ACCS edit for multiple records.
Minimum Guarantee Each RHA guaranteed a 4% funding increase from previous year (2003/2004), prior to new funding adjustments.	**Minimum Guarantee** Each RHA guaranteed a 3% funding increase from previous year (2002/2003), prior to Northern Allowance and Mental Health Transfer.

Population Data Source

The population data source for the funding model, as chosen several years ago by a ministerial committee on funding, is the AHCIP *Population Registry* file. The *Population Registry File* is generated from the *Stakeholder Registry System*, which was designed primarily for Alberta Health Care Insurance Plan premium billing purposes. The Registry file includes all known residents of Alberta that have been determined to be eligible for Health Care Insurance coverage. It excludes some residents, such as the RCMP and military service personnel, whose health care is paid for by the Federal Government.

Various sources are used to maintain the AHCIP registration data, and information is updated daily. Alberta Health and Wellness currently processes retroactive changes to the file as far back as 24 months.

The base population data used in calculating the 2004/2005 funding capitation rates is the Registry population as of March 31, 2003, as seen four months later at July 31. A four month lag for adjustments is necessary to allow for the bulk of retroactive adjustments. Included on the Registry file for registered residents are:

- address
- gender
- date of birth
- some socio-economic elements (e.g. eligibility for premium assistance, or coverage as a member of Health Canada's Treaty Indian group)

Individuals receiving social service benefits - one of the four socio-economic groups used for Population Based Funding - are identified from a data file received from Alberta Family and Social Services for March 31 (only those individuals listed in specific support categories). Also, physical residency addresses were obtained for the majority of Public Trustee clients, whose billing address on the Population Registry file is simply a Public Trustee office.

All registrations with the necessary data elements are included in the calculation of the expenditure and funding capitation rates, but only **active** registrations with identified age, gender, socio-economic status and RHA residence are used for population based funding allocation to RHAs. Thus, a registration record without an RHA or age identifier is excluded.

Population Residency

When Alberta's RHAs were originally created, there was a requirement to be able to assign each Alberta health care registrant to an RHA based on the residency of the registrant. After reviewing various options to achieve this requirement, it was determined that using the postal code from the registrant mailing address provided the most viable, although not totally foolproof, option. A mailing address is required to register for basic health services. A physical address field is available in the population registry, but it is not a mandatory field and not fully utilized. Consequently, registrant postal codes (as at March 31) are used to determine region of residence

for purposes of regional funding allocation.

For residents of continuing care facilities, the postal code is set to the postal code of the facility. For 2004/2005 funding, the Resident Classification System survey from the fall of 2002 was used for residency determination as of March 31, 2003. For health care registrants out of province (sabbatical leave, temporary employment, etc.) who only have their out-of-province address recorded in the Registry file, the last known Alberta postal code obtained from the Statistical Registration History Master is used to determine residency for Population Based Funding purposes. For registrations with Bad Address Flags, the flag is ignored and the region of residence becomes the location of the bad address postal code.

Assignment of postal codes to an RHA is not a simple or straightforward task. There are approximately 70,000 active postal codes in use in Alberta, and all of Alberta is not neatly divided up into postal code areas. Postal codes only specify to Canada Post where mail is to be delivered, which includes rural post office boxes which are accessed by individuals over an undefined geographic area.

Assignment of each postal code to a region by Alberta Health and Wellness is based on the "representative points" which Statistics Canada assigns to each postal code to refer to a specific geographic location (a coordinate proxy for the postal code location). For rural areas, one representative point is normally associated with each census enumeration area (in the absence of any cluster, the point is placed at the visual centre of the enumeration area), and thus it can simply be a matter of determining which census enumeration areas fall into which RHA. Where one postal code covers a large geographical area (i.e. multiple representative points) located within two or more RHAs, all registrants are assigned to a single RHA on a "best assumption" basis. In general, assignment of postal codes to a region is less reliable for rural areas where postal codes, in many cases, cover mail delivery points over a large geographical area. It is also recognized that postal code may not be the most appropriate residency indicator for Population Based Funding in cases where addresses are maintained by family but the dependant's address is different.

While improvements have been explored in determining residency for the health care registrants, it should be remembered that the financial impact from mis-assigned residents is minimal, on average, for any region as a result of the import-export mechanism of regional funding. For example, even if a region does not receive Population Based Funding for one of its actual residents, it would receive an import funding adjustment for all health services which it provides to that individual. The import-export mechanism, described previously in the manual, compensates regions for residents serviced from outside of their identified region.

Population groups

Altogether, there are 124 population groups identified for Population Based Funding. These are the result of:

- *twenty* age groups: (<1,1-4,5-9,10-14,15-19,20-24,25-29,30-34,35-39,40-44,45-49,50-54,55-59,60-64,65-69,70-74,75-79,80-84,85-89,90+)
- *two* gender groups: (male, female)

- *four* socio-economic groups:
  - aboriginal (Treaty Status) under age 65
  - welfare (those receiving social assistance during the year) under age 65
  - subsidy (those with subsidized health care premiums) under age 65
  - other (this group represents the majority of Albertans including all persons age 65+)

Composition by socio-economic group:

28	aboriginal (under age 65) groups	[14 age groups x 2 gender groups]
+ 28	welfare (under age 65) groups	[14 age groups x 2 gender groups]
+ 28	subsidy (under age 65) groups	[14 age groups x 2 gender groups]
+ 40	other groups	[20 age groups x 2 gender groups]

= 124 population groups

Each of these groups must be mutually exclusive for the funding model. The Registry file can only include one age or gender per individual, but it is possible that an individual could belong to more than one socio-economic group. For such cases, a decision hierarchy is imposed with the following order: aboriginal, welfare, subsidy, other.

These population groups were chosen because of the known sensitivity of health care needs to age, gender and socio-economic status. Estimated health expenditures per person are most sensitive to the *age* factor. The age group 1-19 years has an estimated average annual per capita regional health expenditure rate (not including PPP) of $403, compared to the average rate of $5,455 for the 65+ age group, which is fourteen times higher! Various age group expenditure rates are shown below:

age	*average per capita rate ($)*
< 1	2,251
1 -19	408
20-44	605
45-64	785
65-69	2,124
70-79	3,916
80-89	9,788
90+	24,163

Gender is a less important determinant of health expenditure, but accounts for significant differences in the child-bearing years. On average, females in the child-bearing years incur over twice as much health care expenditure as males in the same age group (see capitation rate table on page 11).

In addition to age and gender, health expenditure needs also vary significantly by *socio-economic status* (note: the Population Formula is structured on the premise that socio-economic status is only a good predictor of health needs for the population under 65 years of age). The capitation

rates are highest for those in the *welfare* group (about five times higher, on average, than the regular non premium subsidy group), followed by *aboriginal* (about two times higher than the regular group), and then *subsidy* (about 1.5 times higher than the regular group).

POPULATION COMPOSITION

(by socio-economic status)

As of March 31, 2003

		Under 65				
	Age 65+	Aboriginal	Premium Support	Welfare	Regular	Total
RHA	%	%	%	%	%	%
R1	13.4	7.4	11.9	3.1	64.2	100.0
R2	12.8	0.8	10.1	2.3	74.0	100.0
R3	9.2	1.8	8.4	2.1	78.5	100.0
R4	11.7	5.0	10.1	2.7	70.5	100.0
R5	15.4	0.9	11.9	2.3	69.5	100.0
R6	10.7	2.6	9.3	3.3	74.0	100.0
R7	10.1	11.1	10.0	2.5	66.3	100.0
R8	8.5	7.9	9.7	2.3	71.6	100.0
R9	2.6	15.1	7.0	1.2	74.1	100.0
Total	10.3	3.6	9.3	2.6	74.1	**100.0**

Population Projection

Population formula funding applies capitation funding rates to each region's projected population for the funding year. For 2004/2005 funding, this requires a projection of March 31, 2003 population data to September 30, 2004 (mid-point of fiscal year).

Projected annual growth of each population cell (registered persons by age, gender and socio-economic group in each community) is based on the pro-rated (12 months to 18 months) historical growth from March 31, 2002 to March 31, 2003. Projected population is then scaled by the same factor to produce an overall provincial population increase equal to the forecasted provincial population growth for 2004/2005 of 1.5%.